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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/760,213 | 01/12/2001 | Magnus Malmqvist | 740073.404C1 | 2678 |

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EXAMINER

CROSS, LATOYA I

ART UNIT

PAPER NUMBER

1743

DATE MAILED: 12/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|-----------------|------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/760,213 | MALMQVIST ET AL. |
| Examiner | Art Unit | |
| LaToya L. Cross | 1743 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 07 October 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-28, 43 and 44 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-28, 43 and 44 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other:

DETAILED ACTION

1. Applicant's election without traverse of claims 1-30, 43 and 44 in Paper No. 8 is acknowledged. The cancellation of claims 29-42 is also acknowledged.

Drawings

2. This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1, 2, 4, 6, 9, 10, 17-23 and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/01087 to Oroszlan et al.

Oroszlan et al teach a method for analyzing an analyte of a fluid sample whereby a flow cell is provided which allows the sample to be kept away from certain regions of the flow channel without the need for structural partitions that divide the flow channel into chambers. Specifically, a laminar flow of a first fluid (P1, P2, P3 –sample fluids) flows adjacent to a flow of second fluid (R1, R2 – reference fluids), shown in figure 9. The sample fluid is a sensitizing

Art Unit: 1748

fluid and the reference fluid is non-sensitizing. This configuration allows the sensitizing sample fluid to be sandwiched between non-sensitizing reference fluid, as recited in claim 6. The flow rates of the sample and reference fluids can be regulated individually, as recited in claim 1 and 28 (page 19, 2nd paragraph). According to figure 10, reference fluid flows in the flow channel toward the sample flow and meets the sample fluid at an interface (the mouth of discharge channel 41). Under laminar flow conditions, the individual stream do not mix allowing a plurality of samples to be tested simultaneously, as recited in claim 2 (pp. 18 – 20). The flow rate of the sample is adjusted by altering the thickness of the flowing layer. With respect to claim 4 and 22, Oroszlan et al teach more than three samples may flow adjacent one another through the flow channel (page 19). With respect to claims 9 and 10, Oroszlan et al teach that the flow cell may be used as an optical waveguide having a detection layer in which selectively sensitive recognition elements for analytes are immobilized (page 6, 1st paragraph; page 21, last paragraph). With respect to claims 18, 21 and 25-28, discrete sensing areas are shown in figure 12 – grating (73) and detection layer (8a).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1743

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 3, 5, 7, 8, 12-16, 18, 19, 24, 28, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oroszlan et al.

Oroszlan et al do not specifically teach replacing the first sensitizing fluid with a fluid that does not interact with a fluid the sensing surface, replacing the second fluid with a sensitizing fluid different from the first sensitizing fluid, or applying the second sensitizing fluid traversely to the direction of the first sensitizing fluid. However, the reference does teach that multiple fluids can be used. It would have been obvious to use two sensitizing fluids different from one another to allow detection of different analytes in different samples where desired. With respect to the direction of fluid, Oroszlan et al teach the reference fluid flow traversing the sample fluid flow. It would have been obvious to have a first sensitizing fluid to traverse a second sensitizing fluid to optimize the flow of fluid throughout the cell.

Art Unit: 1743

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaToya I. Cross whose telephone number is 703-305-7360. The examiner can normally be reached on Monday-Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 703-308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

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November 30, 2003


Jill Warden
Supervisory Patent Examiner
Technology Center 1700